

**REMARKS:**

The Office Action dated September 10, 2003 has been reviewed and carefully considered. Claims 1-7 remain pending in this application, of which claim 1 is an independent claim and has been amended to clarify the invention. Reconsideration of the above-identified application, in view of the following remarks, is respectfully requested.

Applicant notes with appreciation the indication in the office action that claims 2-5 recite allowable subject matter and would be allowed if rewritten to include all the limitations of the base claims and any intervening claims.

Claims 1, 6 and 7 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Edwards et al (U.S. 5,977,753 hereafter "Edwards"). Applicants respectfully traverse this ground of rejection, as it is respectfully submitted that the present invention is neither anticipated nor taught by Edwards.

The present invention, as recited by independent claim 1, teaches an up/down DC/DC converter having a dual path inductive storage means. Fig. 3 shows that conductor L has a first path from second connection end to the first output terminal (33). That same conductor also has a second path from the first connection end via second switching means (S2) to the third output terminal (35), support for which is found at least in page 6, line 4 of the specification. The present invention further discloses that the DC/DC converter in its operation uses one inductor as the energy storage means such that during use the first output of the DC/DC converter provides a voltage  $V_{out1}$  and the second output of the DC/DC converter provides a voltage  $V_{out2}$  wherein  $V_{out1} < V_{in}$  and  $V_{out2} > V_{out1}$ , (Please see page 3, line 16-20 of the specification). This inductor, through switching

means

S2 is connected to both outputs during different phases  $\Phi_1 - \Phi_6$  (Fig. 4) of operation. (Please see page 6, line 28 and page 7 line 3 of the specification).

In contrast, Edwards teaches an up/down DC/DC converter having an inductor which is one winding of a transformer and another inductor constituting a second winding of the transformer. The first inductor is connected to an output terminal for a first voltage  $V_1$  which is less than (the peak value of) the input voltage  $V_{in}$ . The transformer has a center tap along the second winding dividing it into a first part and a second part. The output of that second inductor is connected to an output terminal for a second output voltage  $V_2$  wherein  $V_2 = -V_1$  in one embodiment. Whereas, in other embodiments, the relationship of  $V_2$  and  $V_1$  varies. Support can be found in Edwards at least in column 4, line 64 and column 5 line 5-10. Accordingly, the present invention functions differently than Edwards.

Applicant respectfully submits that the reference fail to teach or show an up/down DC/DC converter using one inductor as electrical energy storage means connected to both outputs, as recited in claim 1.

Therefore, reconsideration and withdrawal of this ground of rejection are respectfully requested.

The other claims in this application are dependent upon independent claim 1, and as discussed above, are therefore believed patentable once the independent claim is allowed. Since each dependent claim is also deemed to define an additional aspect of the invention, however, consideration of patentability of each on its own merits is respectfully requested.

U.S. Serial 10/056,469

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to kindly contact the undersigned at the telephone number listed below. If there are any fees due and owing, please charge Deposit Account No. 502-470.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the COMMISSIONER FOR PATENTS, Mail stop Non-Fee Amendment, Box 1450, Alexandria, Virginia 22313-1450 on December 2, 2003.

Steve Cha, Reg. No. 44,069

(Name of Registered Representative)

  
(Signature and Date)